AAPA American Association of Port Authorities

Alliance of the Ports of Canada, the Caribbean, Latin America and the United States

moffatt & nichol

Global Rebalancing

THE WORLD ECONOMY AND ITS IMPACT ON INTERNATIONAL PORT BUSINESS ACTIVITIES: TENDENCIES AND PERSPECTIVES

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Summary

The world economy is in the process of stabilizing after a long period of runaway growth in Emerging Markets and as developed economies adjust to aging populations and changing economic bases. In the near term the US is best positioned to lead the world economic recovery.

It has been hard to adapt to a rapidly growing and changing world economy

Commodity prices have become very volatile
Sourcing of manufactured goods has become globally flexible

Current weak growth reflects the delicate process of global balancing

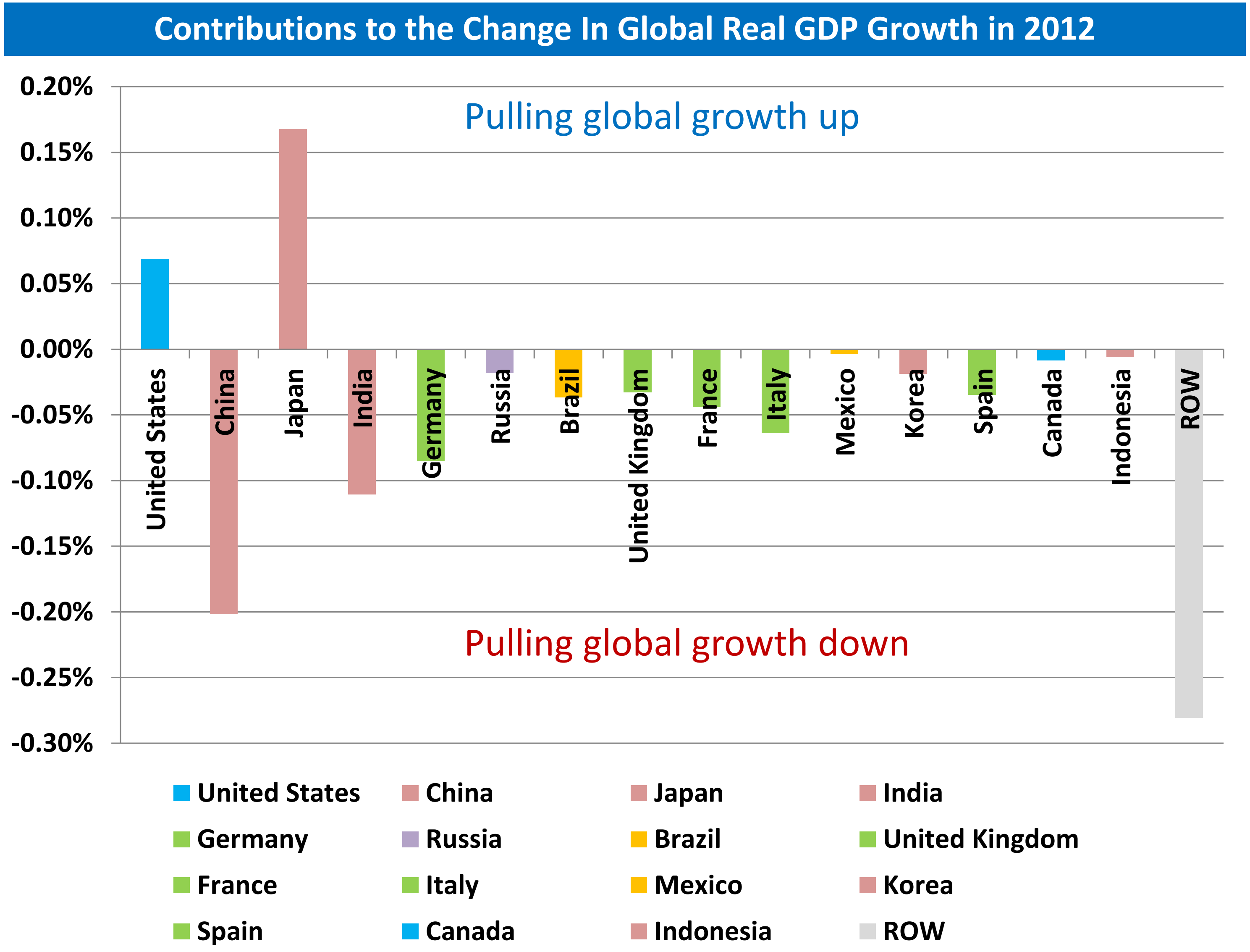
Developed economies are struggling with debt and aging populations
Asian economies are very dependent on exports of manufactured consumer goods
Latin American exports are too concentrated in raw materials

Long term outlook is a tough call as policymakers have to deal with multiple structural problems

US, Japan, Europe and Latin America need transportation infrastructure investments
Private sector interest in infrastructure investment is frustrated
Currency market intervention creates instability and uncertainty

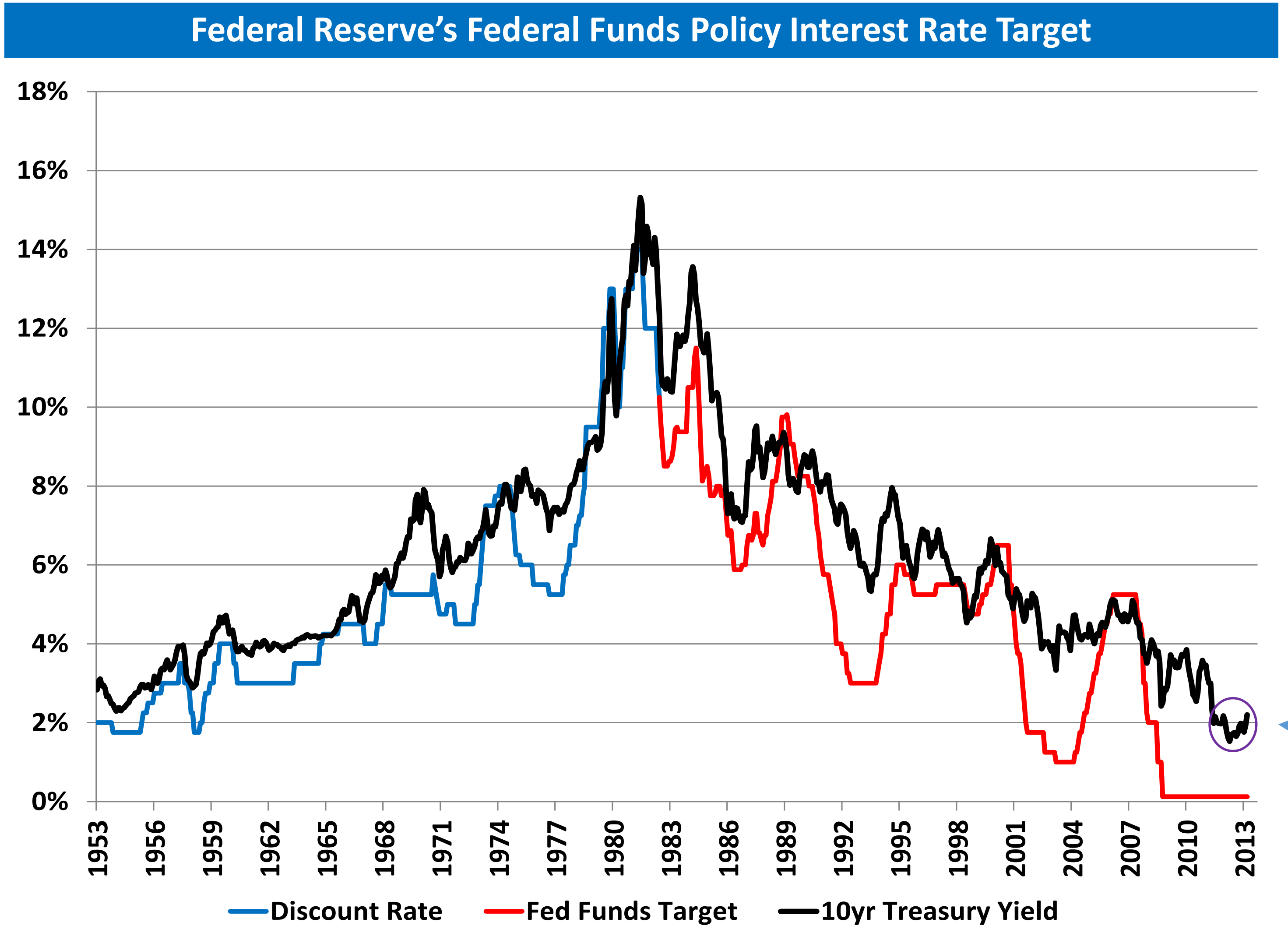
2012: the US stepped up despite fiscal obstructions

Japan's contribution is overstated because it reflects a rebound from the terrible earthquake and tsunami of 2011. Excluding Japan's contribution, the US has singlehandedly supported global economic growth and continues to do so.



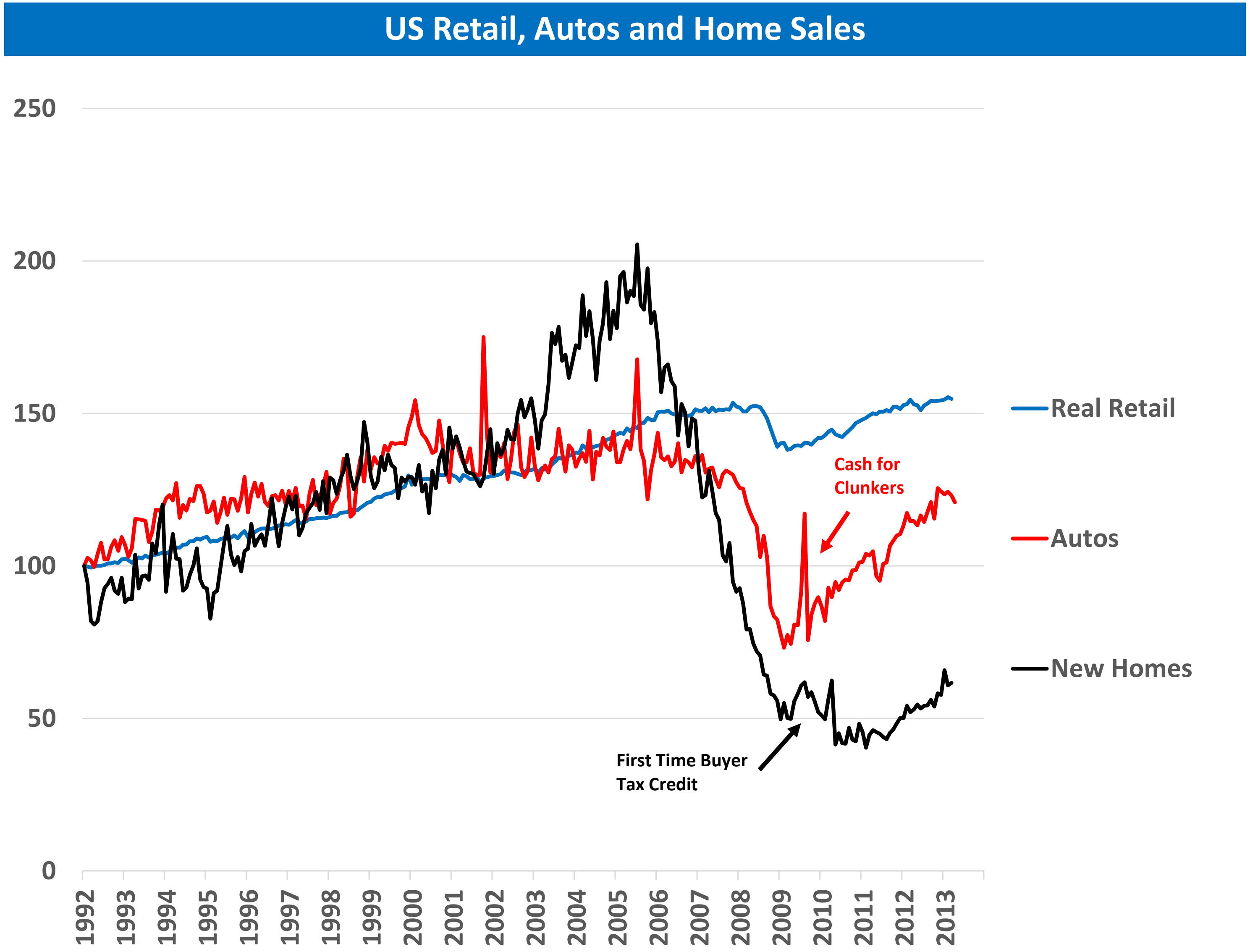
The Fed set interest rates at historically low levels and monetized government debt

The Fed has relatively direct control over short term interest rates. Lowering short term interest rates was not enough so it started buying Treasury bonds which pushed prices up and yields (interest rates) down. Mortgage rates and corporate borrowing rates also declined which instigated purchases of long term assets. The Fed is about to reverse these policies.



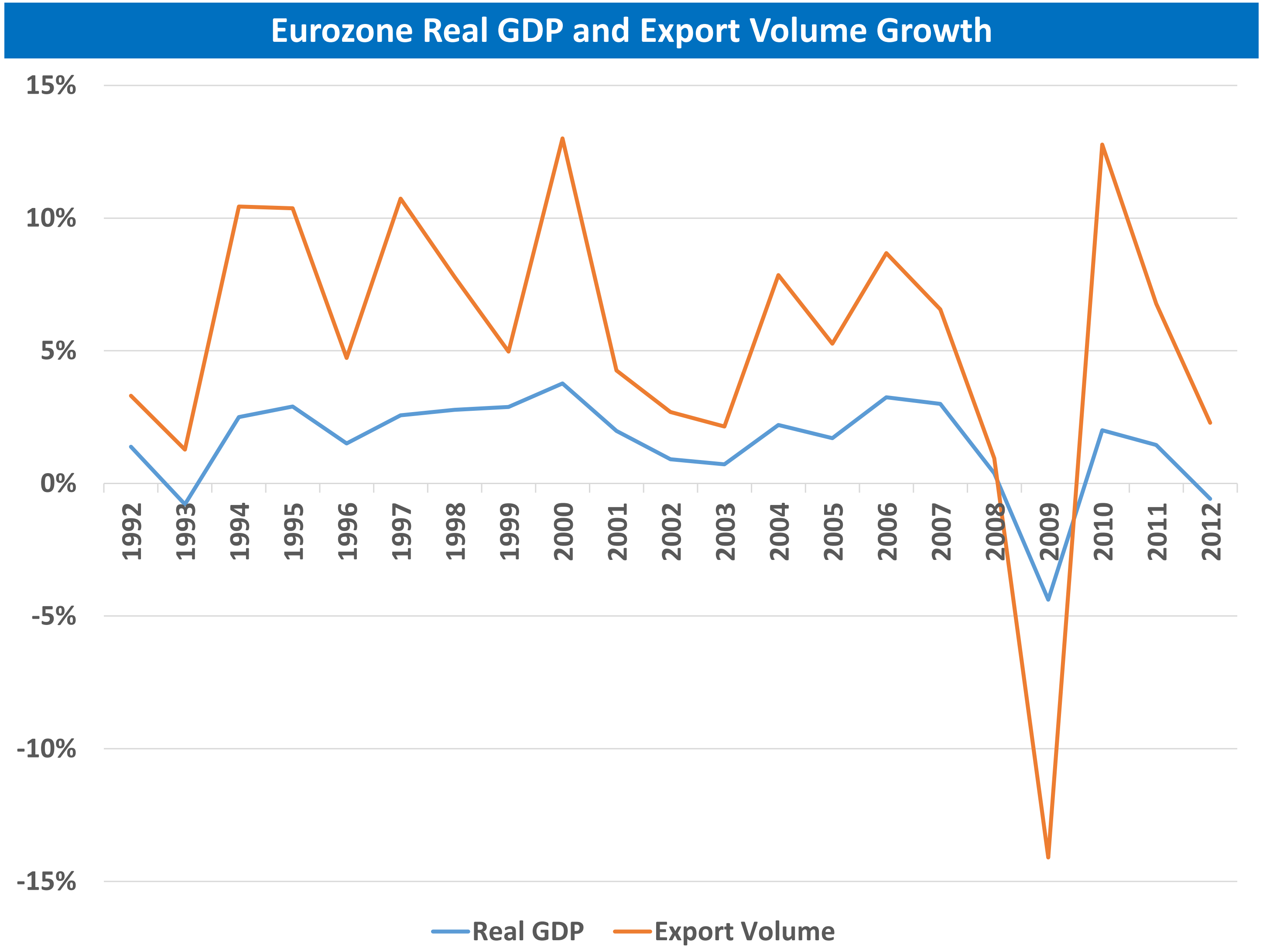
US consumer spending is past the worst point

Spending on major consumer goods categories is recovering as is employment. These two trends are self-reinforcing. As employment increases, consumer spending rises and companies employ more people.



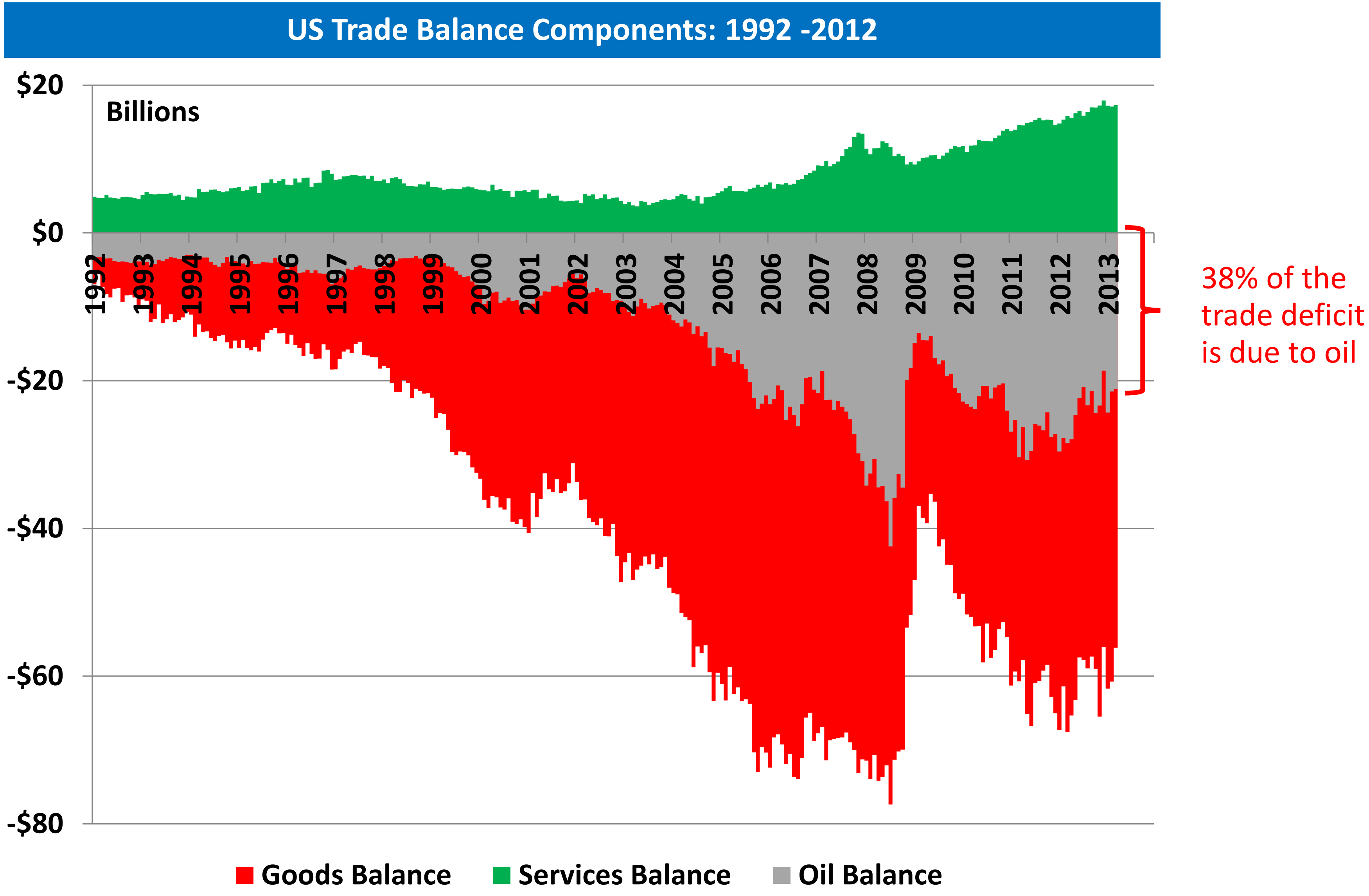
Europe should benefit from US trends and become less of a burden

German consumer sentiment has been rising which suggests Europe's recession may be improving. Rising US consumer spending should result in more imports from Europe, assuming the euro does not appreciate against the dollar. As Europe recovers that will also help Asia and Latin America since it should see higher import growth



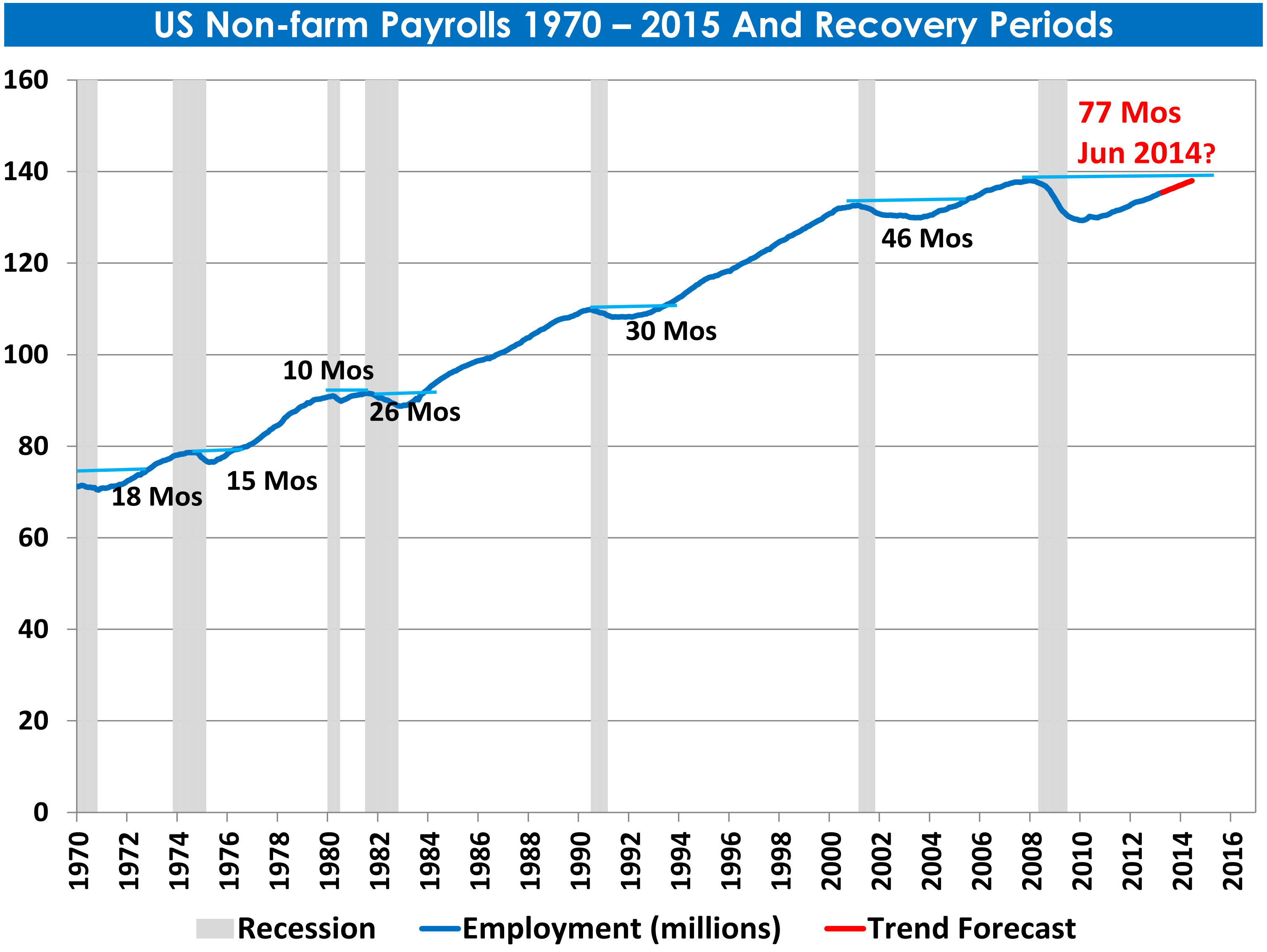
Unsustainable trade deficit clouds the medium to long term outlook

Even excluding the oil trade deficit, the Goods deficit is 2x the Services surplus. This has contributed to the decline in the value of the dollar.



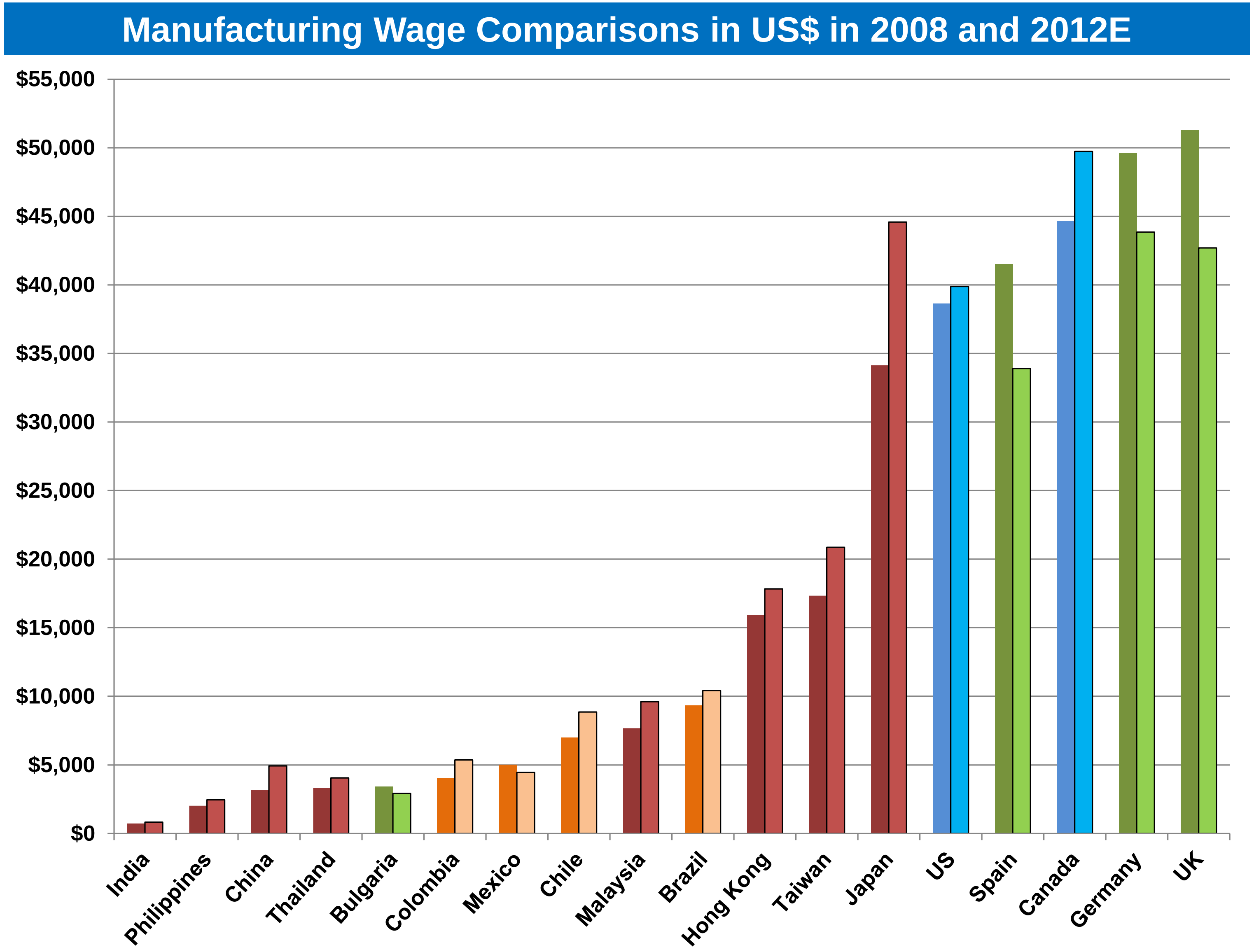
Longest post-recession recovery period since 1950

Employment recoveries have been lengthening as capital and foreign labor (offshoring) reduce manufacturing employment. US workers need to seek opportunities in export-oriented industries.



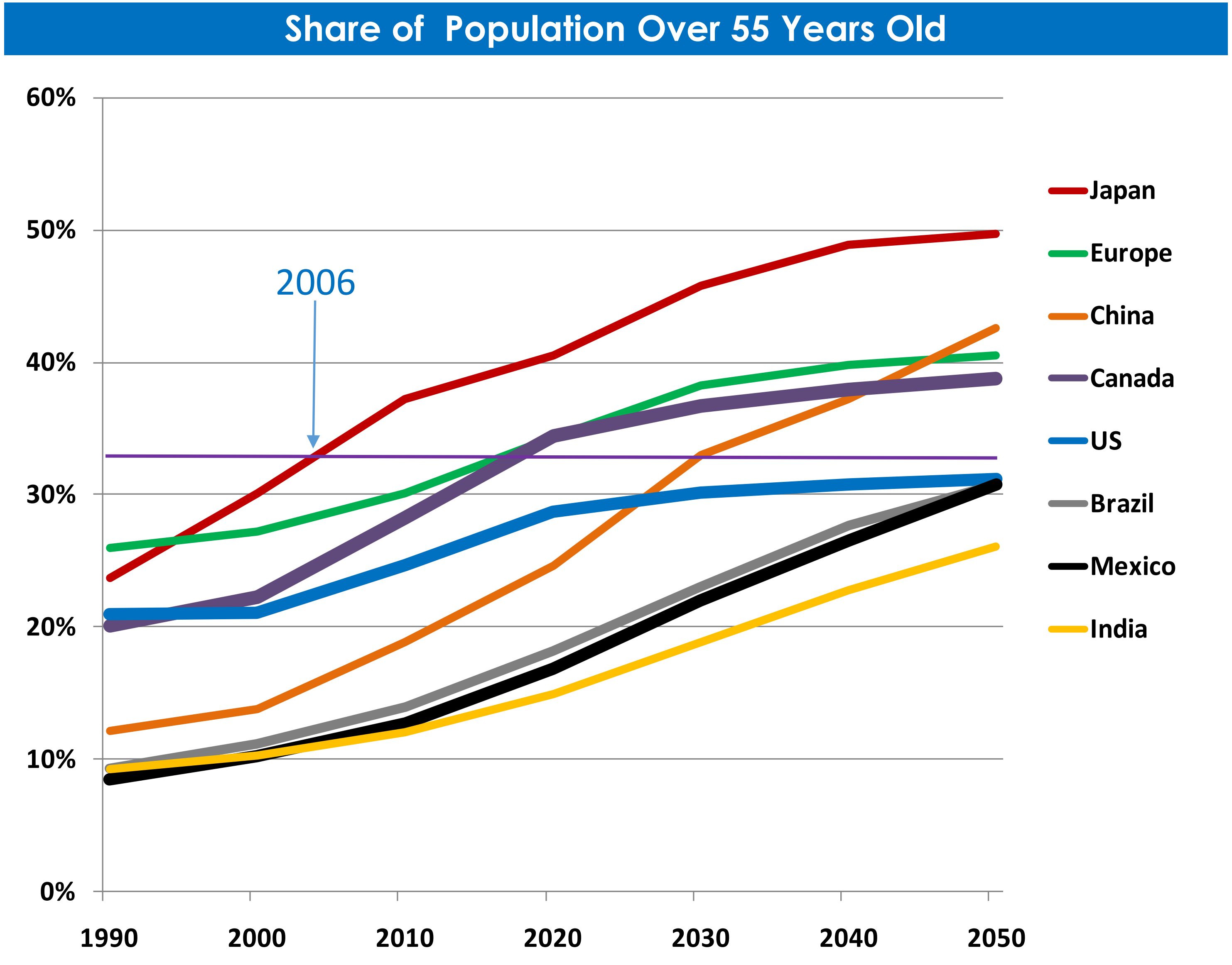
Developed economy labor costs are not competitive

It is unlikely that manufactured goods which are labor intensive will be manufactured in the US.



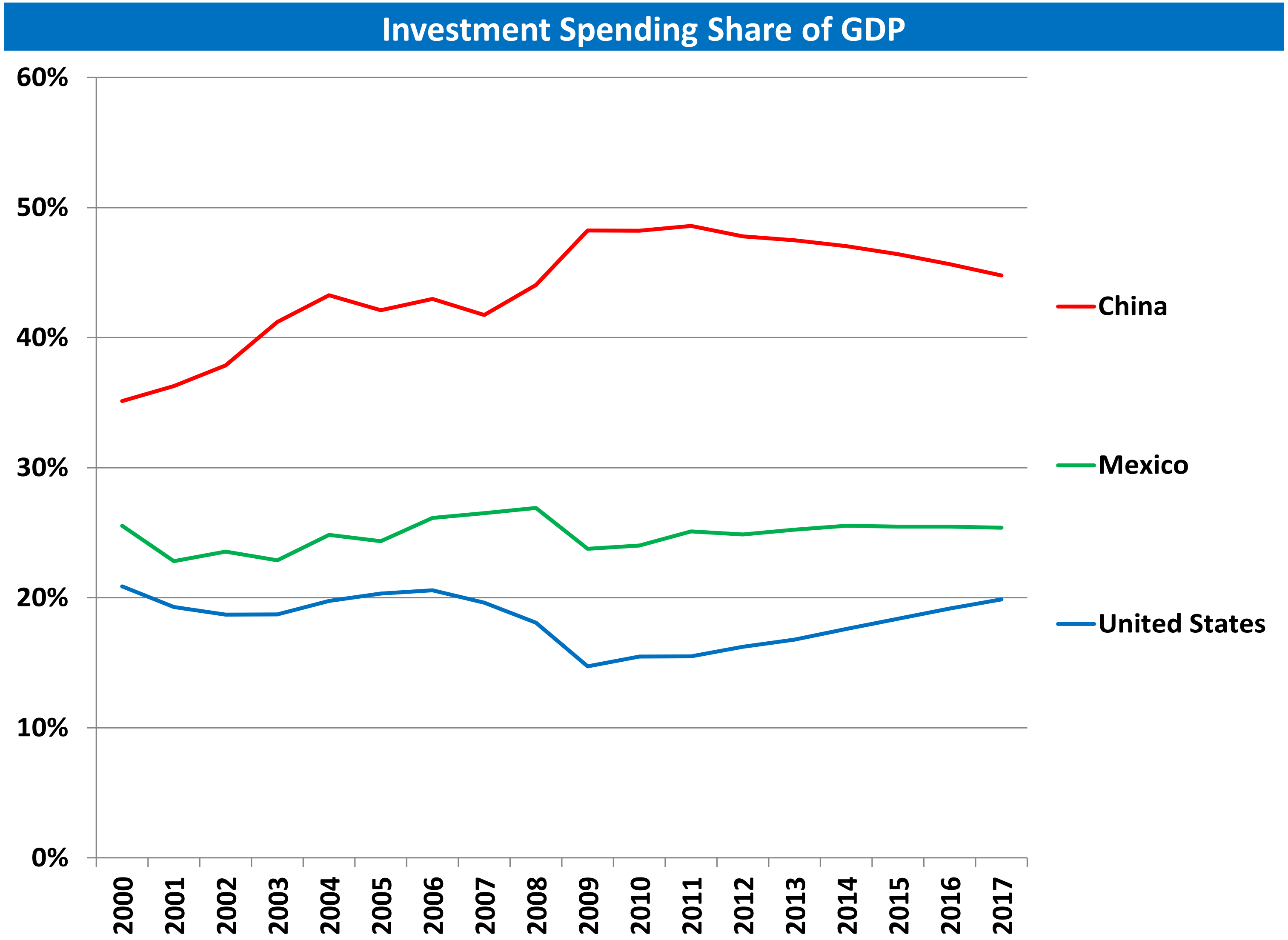
The Grey Tsunamis

Major developed economies, have an increasing share of their populations that are of retirement age. This impacts labor markets and future public sector finances. China also has a looming problem.



China is changing its focus from exports to domestic demand

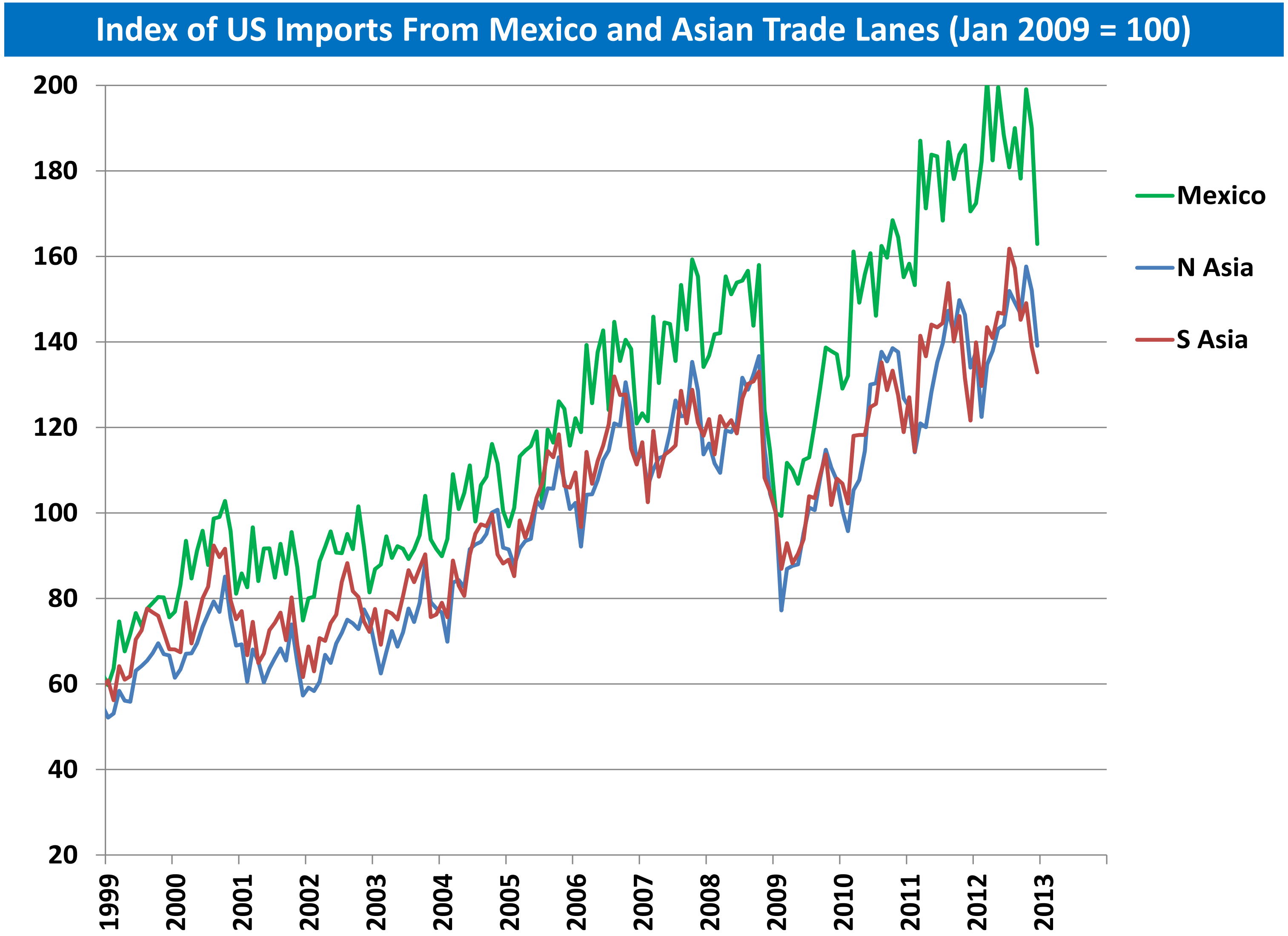
China will continue to invest in infrastructure as its capital-per-worker ratio is low, but the focus has shifted to developing domestic demand so as to be less dependent on exports. It is likely that industrial metals prices will not benefit from this trend. Energy demand will continue to grow strongly.



Source: IMF

China has been losing share of US imports but does not seem to care

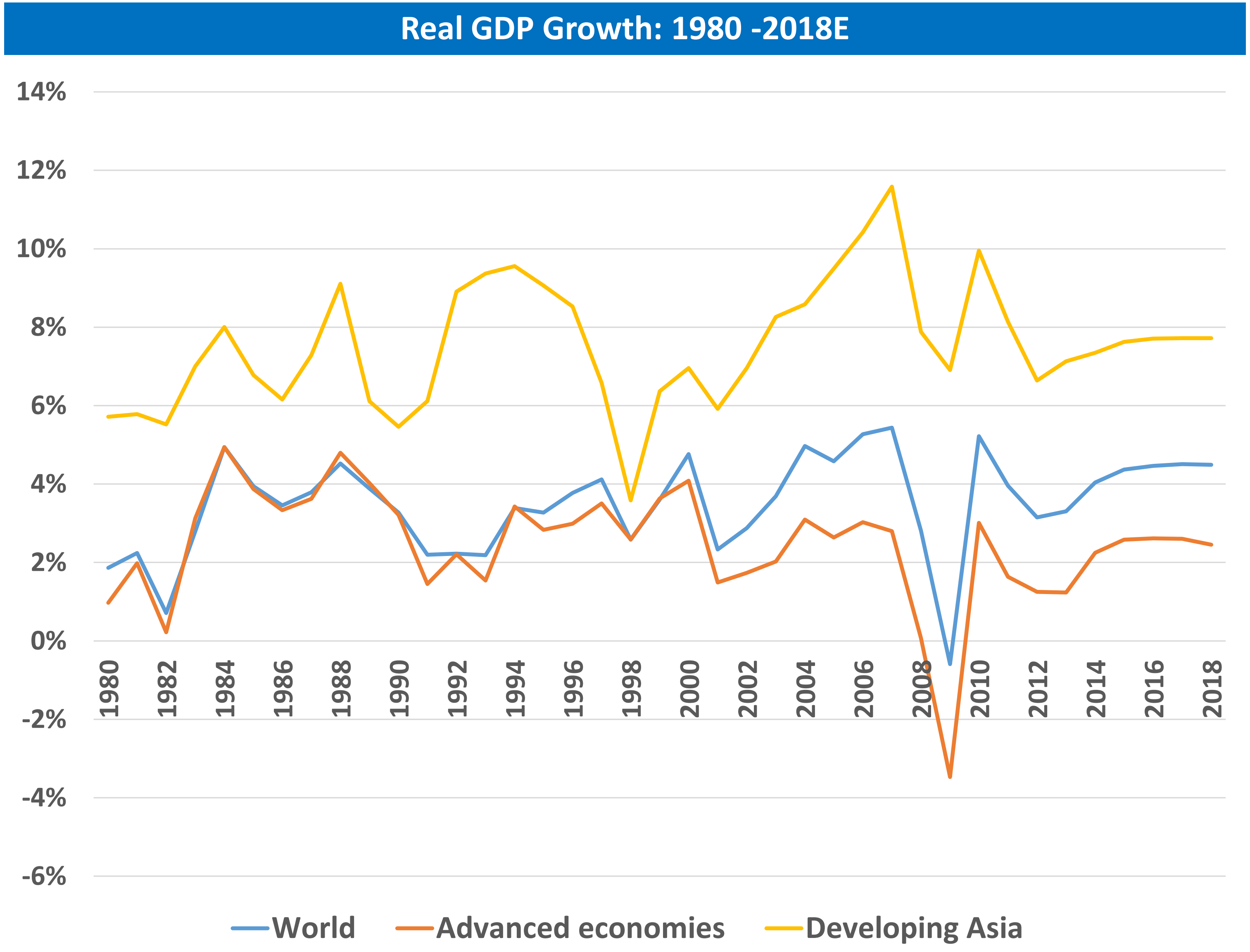
Factories have been moving from China to India and Vietnam. Mexico has been investing in infrastructure and with its low cost base can competitively export to North and South America.



Source: IMF

Emerging markets are the growth opportunity for mature developed economies

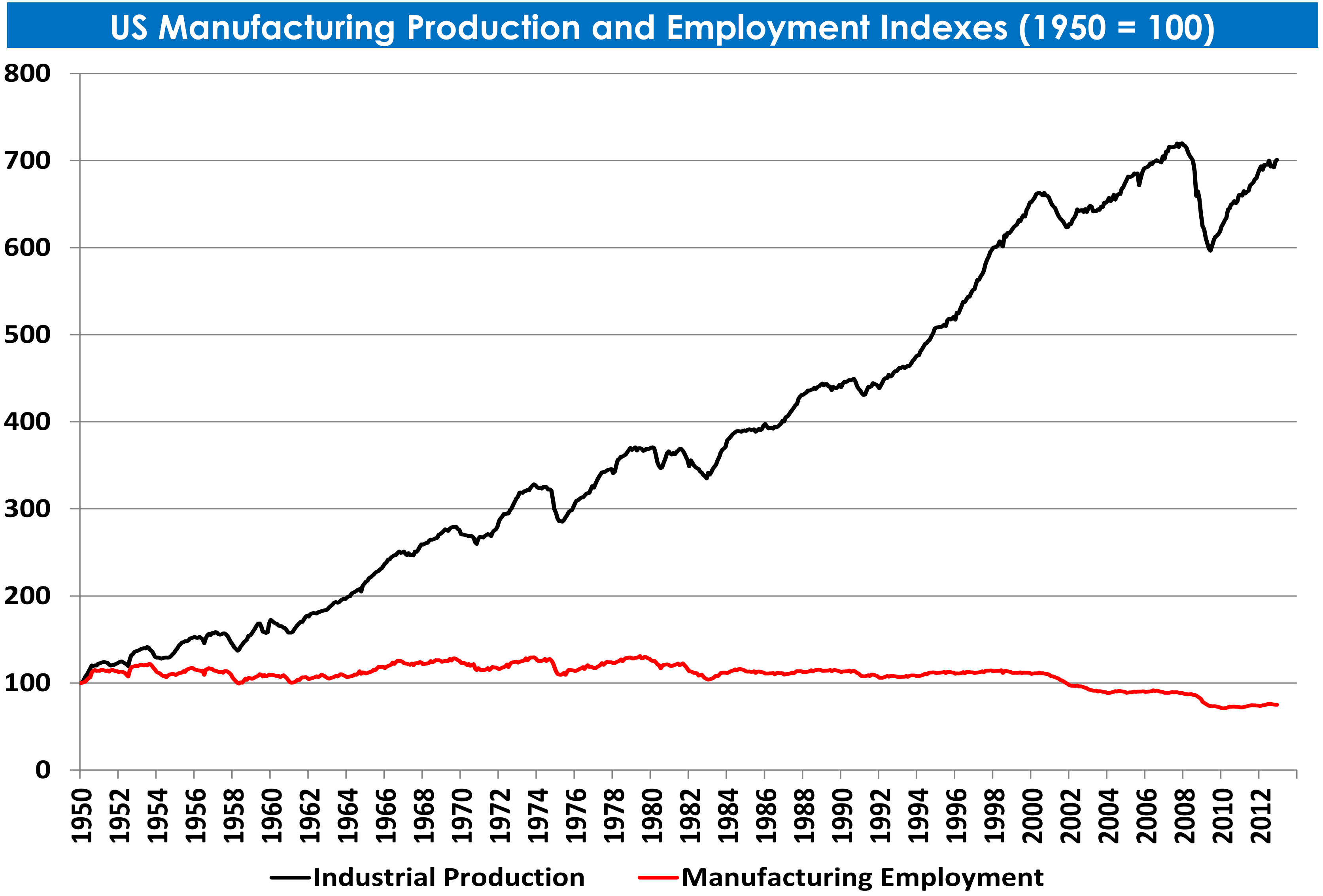
Growing emerging market middle class consumers want the same things that their developed economy counterparts have



Source: IMF

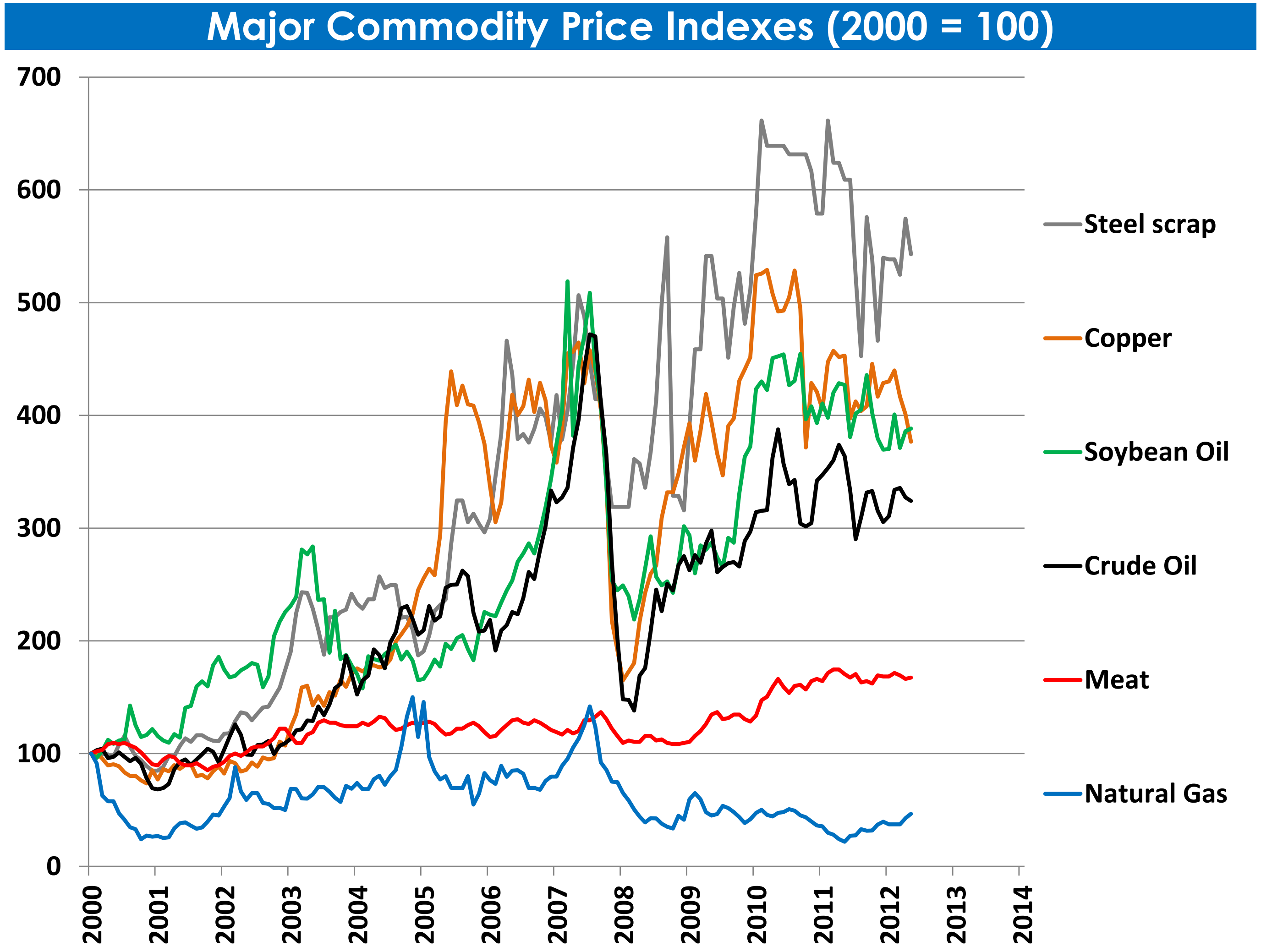
Developed markets can grow exports of industrial goods that are not labor-intensive

Capital-labor substitution and shifts towards higher-end capital (industrial) goods underlie growing manufacturing output. North America, Europe and Japan can grow these exports with more automation.



Commodity demand is growing faster than supply

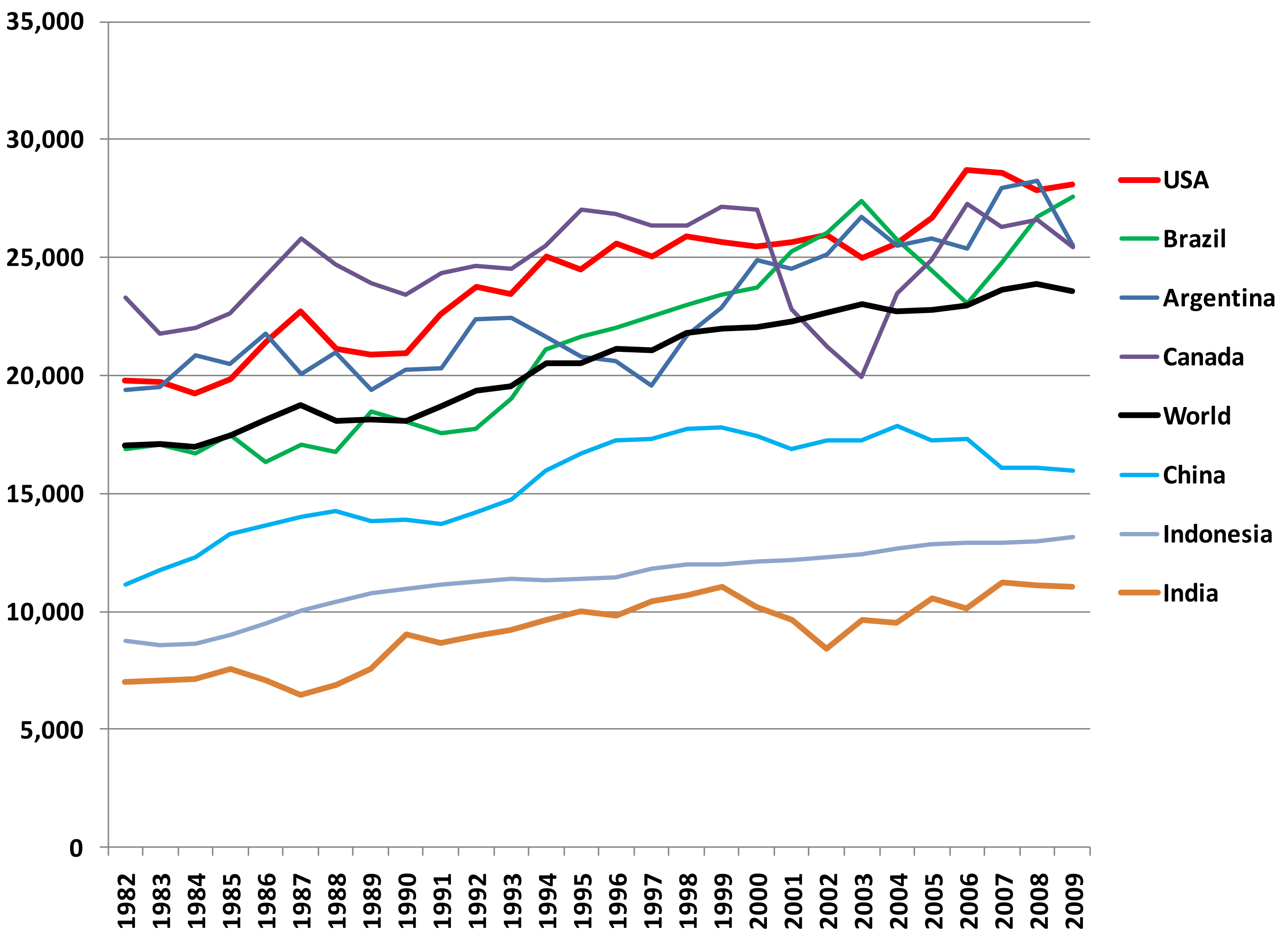
Consumption demand from Emerging Markets needs accommodation. Commodity production is capital-intensive which means they are good candidates for US exports.



The Americas are a natural source of agricultural supply to Asia

Agricultural productivity is rising in the Americas but weakening in Asia. The US could benefit from this but its competitors are getting ahead.

Soy Yields (Hectogram Per Hectare)



Source: UN-FAO; Moffatt & Nichol

Colombia's Trade is Diversifying… Moving Downstream

Imports of consumer and construction related goods have grown, but exports of mining, agriculture and
industrial products remain large, staple trade volumes

Development Curve

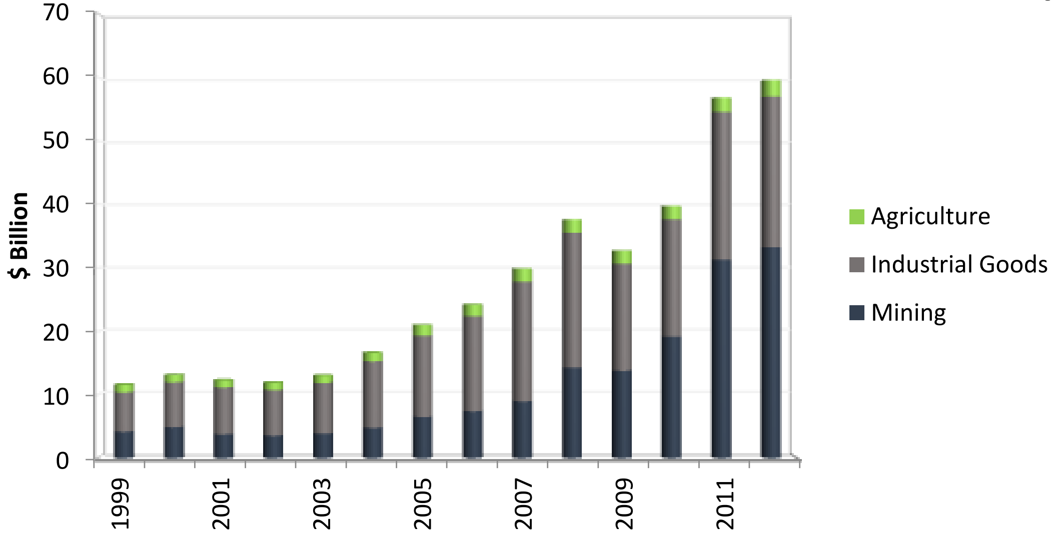
Developing Economies:

- Investment in freight movement infrastructure
- Industrial production for local consumption & international export
- Demand for import consumer related products increases
- International trade growth mixed with export volumes of manufactured and naturally endowed goods, as well as growing import volumes of construction and consumer related goods

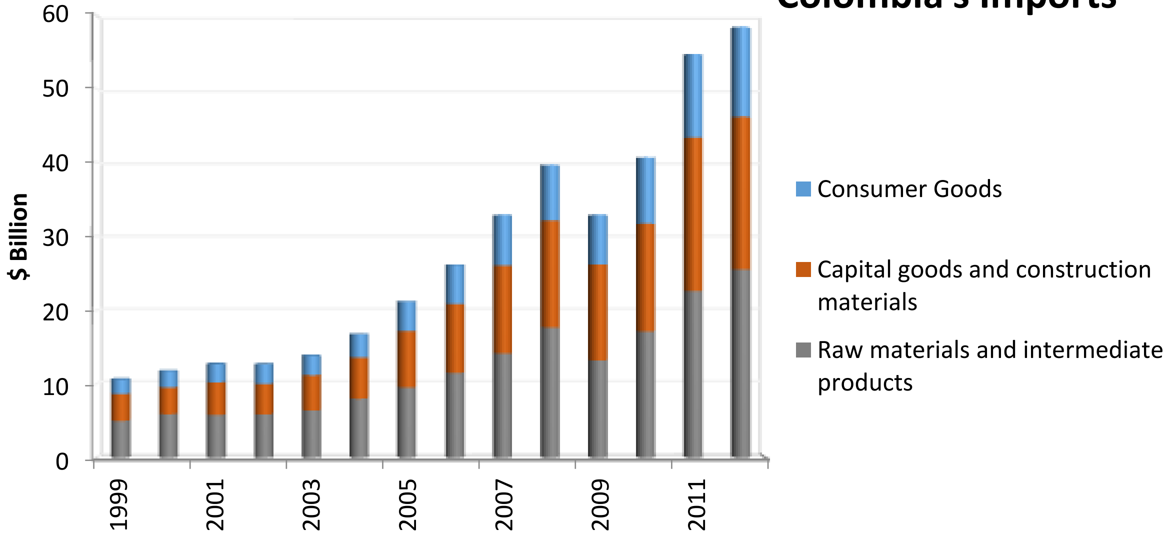
Emerging Economies:

- Industrial production for local consumption
- Low consumer related import demand
- Limited international trade except for naturally endowed commodities

Colombia's Exports



Colombia's Imports



Source: Dane, UN ComTrade

Brazil Has Major Infrastructure Problems

President Dilma Rouseff is trying to change a 200 year old state of insufficient infrastructure

- Inland river system does not support Brazil's economic needs
- Most ports do no have sufficient depth
- Even after PAC programs, Brazil's highway system remains inadequate
- Railways are inadequate for containerized cargo

- Policies announced in 2012 could change this

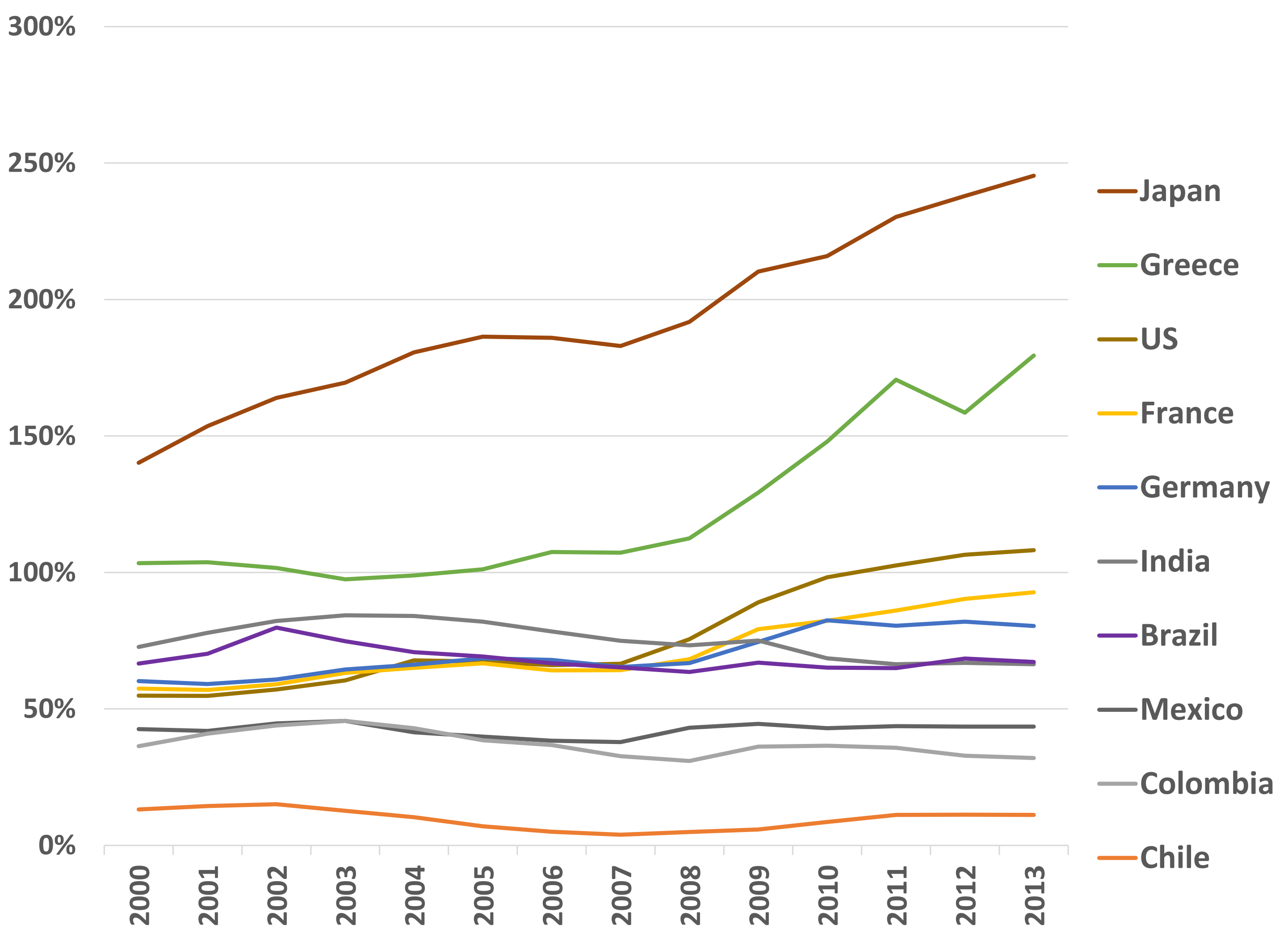
Congestion of Principal Roadways

Source: ANTT

Public sector finances are strained in some countries but not in Latin America

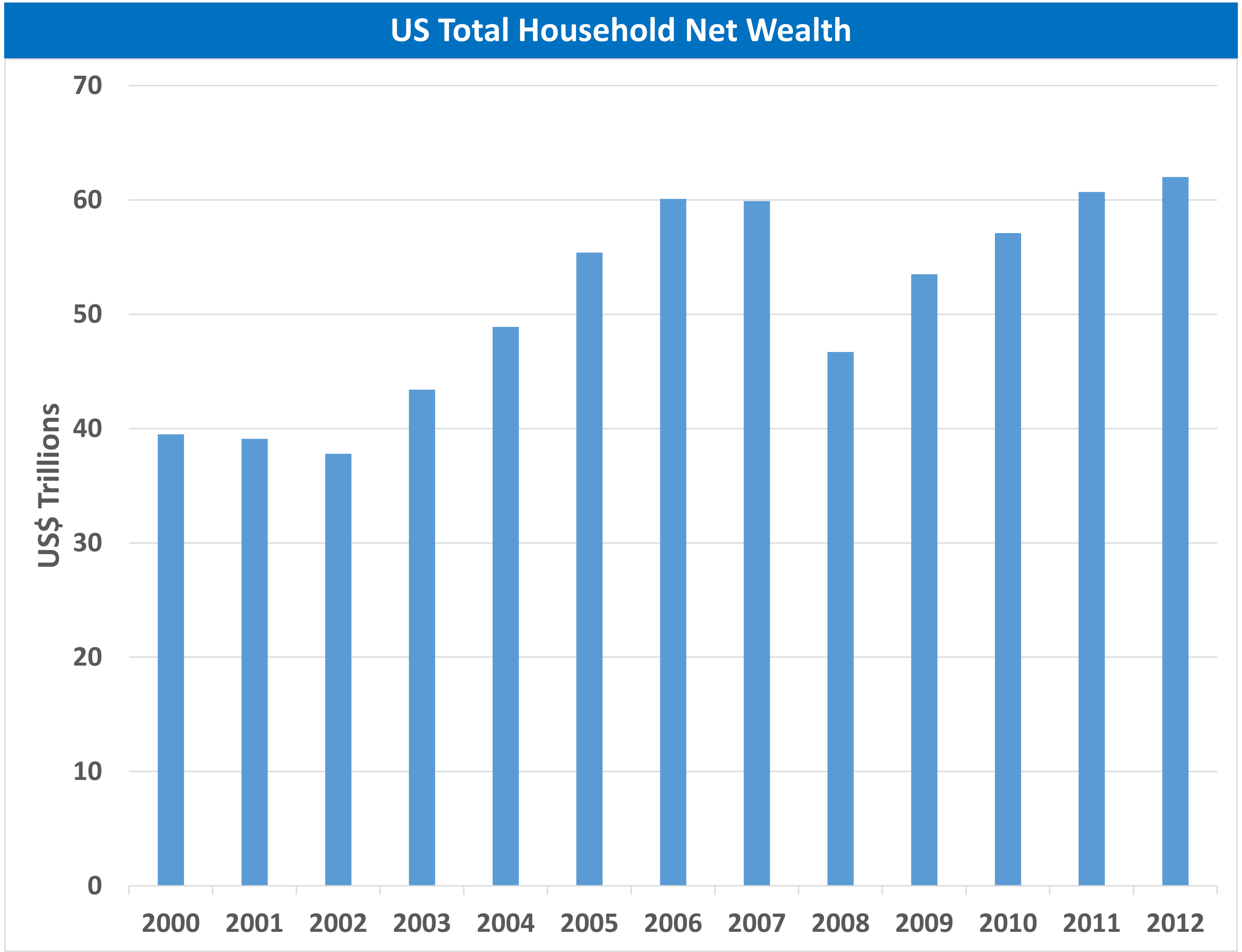
Government debt-to-GDP ratio is at its highest level since World War 2. Demographic trends indicate it will be difficult for developed markets to reduce debt to a manageable level for a long time. Latin America is in a good position – by encouraging private investment it can remain in a good position.

Gross Government Debt-to-GDP Ratios: 2000-2013E



Developed economies have financial resources for infrastructure investment needs

For example, US wealth is a large multiple of the amount needed to return all US infrastructure to a state of good repair as well as upgrade it to improve export competitiveness. Japan, Germany and other developed markets are in the same position.



Source: Credit Suisse Global Wealth Databook 2012; http://www.infrastructurereportcard.org/

The public sector needs to be a good partner to the private sector

Given the state of government finances, demographic trends, the stock of wealth and the substantial infrastructure investment bill, the consensus view is that Public-Private-Partnerships are the most viable solution. But the public sector has to hold up its end of any partnership. That means helping projects move quickly through the initial phases.

Risk-Responsibility Allocation Matrix

Type of Risk / Responsibility	Permitting	Planning & Development	Geological & Environmental	Construction & Completion	Operational	Financial	Force Majeure
Government	XXX	XXX			XX		XX
General Contractor	XXX	XXX	XXX	XXX			
Operator			X	X	XXX		
Investors	XX	XX	XX	XX	XXX	XXX	
Lenders			X	X	X	XXX	
Insurers			X	X	X	X	XX

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Moffatt & Nichol was founded in 1945 to provide engineering and consultancy services to the world's maritime industry.

Today, Moffatt & Nichol supports port and maritime projects, transportation infrastructure, coastal and environmental restorations, and waterfront developments worldwide.

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